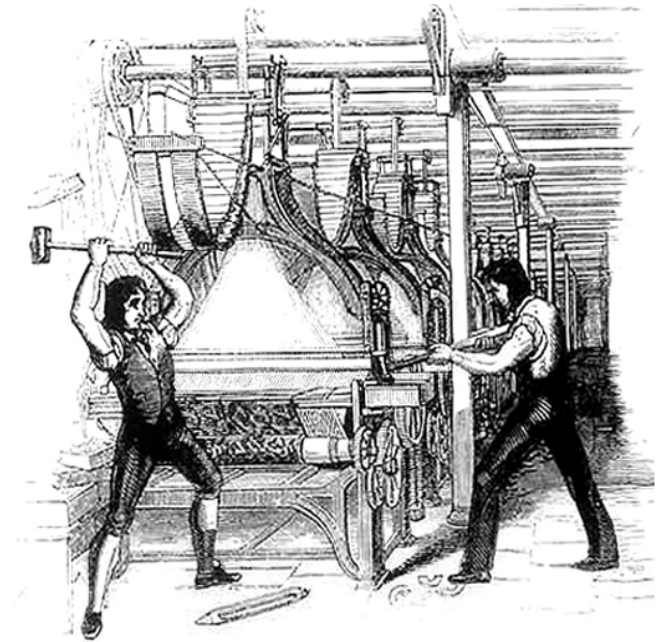


the achievements of General Ludd

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Luddites and lessons
from the Luddites*



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Kirkpatrick Sale

will have taught the folly of that, but rather to understand and obey and love and incorporate nature.

That body of lore is what it is the task of the neo-Luddites, armed with the past, to prepare, to preserve, and to provide, for such future generations as may be. Kirkpatrick Sale is the author of eight books, including *Rebels Against the Future: The Luddites and their War on the Industrialised Revolution*.



The Achievements of 'General Ludd'

A BRIEF HISTORY OF THE LUDDITES AND LESSONS FROM THE LUDDITES

by Kirkpatrick Sale

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THE ACHIEVEMENTS OF 'GENERAL LUDD'

In one sense it could be said that Luddism began on the night of 4th November 1811, in the little village of Bulwell, some four miles north of Nottingham, when a small band of men gathered in the darkness, counted off in military style, hoisted their hammers and axes and pistols, and marched to the home of a 'master weaver' named Hollingsworth. They posted a guard, suddenly forced their way inside through shutters and doors, and proceeded to destroy a half-dozen weaving machines of a kind they found threatening to their trade. They scattered into the night, later reassembled at a designated spot, and at the sound of a pistol disbanded into the night, heading for home.

That, at any rate, was the first attack on textile machines by men who called themselves followers of General Ludd, who would convulse the countryside of the English Midlands for the next 14 months -and would go down in history, and into the English language, as the first opponents of the Industrial Revolution and the quintessential naysayers to odious and intrusive technology.

But, in another sense, one can certainly trace Luddism back even further: to the Enclosure Movement from 1770 on, which took some 12 million acres of shared common lands into private hands; to the perfection of the steam engine in the 1780s and its gradual adoption by textile manufacturers; to the terrible privations brought on by the seemingly endless Napoleonic wars, when what little food there was to be had was often too expensive to buy; and to the increasing

overload and social dislocation, are both the necessary and inescapable results of an industrial civilisation. In some sense, to be sure, they are the results of any civilisation: the record of history suggests that every single preceding civilisation has perished, no matter where or how long it has been able to flourish, as a result of a sustained assault on its environment, usually resulting in soil loss, flooding, and starvation, and a successive distention of its social strata, usually resulting in rebellion, warfare, and secession. Civilisations, and the empires that give them shape, may achieve much of use and merit - or so the subsequent civilisations' historians would have us believe - but they seem unable to appreciate scale or limits, and in their growth and turgidity cannot maintain balance and continuity within or without. Industrial civilisation is different only in that it is now much larger and more powerful than any known before, by geometric differences in all dimensions, and its collapse will be far more extensive and thoroughgoing, far more calamitous.

It is by no means certain that the human species will survive that collapse. If industrialism proceeds as it has for the last 50 years, with only the modest kinds of environmental reforms it has mustered thus far, it seems certain to destroy one or more of the species' essential life-support systems and condemn itself to extinction. But if it happens that some numbers survive and the planet is not sufficiently inhospitable, they might well find use in that body of lore that instructs them in how thereafter to live in harmony with nature - how to serve Read's apprenticeship with nature -and how and why to fashion their technologies with the restraints and values of nature intertwined, seeking not to conquer and dominate and control nature, for the failure of industrialism

ANTHROPOCENTRISM, and its expression in both humanism and monotheism, is the ruling principle of that civilisation, to which must be opposed the principle of biocentrism and the spiritual identification of the human with all living species and systems.

GLOBALISM, and its expression economically and militarily, is the guiding strategy of that civilisation, to which must be opposed the strategy of localism, based upon the empowerment of the coherent bioregion and the small community.

INDUSTRIAL CAPITALISM, as an economy built upon the exploitation and degradation of the Earth, is the productive and distributive enterprise of that civilisation, to which must be opposed the practices of an ecological and sustainable economy of simple living and modest proportions.

A movement of resistance starting with just those principles as the sinews of its analysis might not ever have a chance of 'success', whatever that would look like, but at least it would know where it stood and what it wanted to do. It would at least be able to bring the darkness into the light.

7. The industrial civilisation so well served by its potent technologies cannot last, and will not last: its collapse is certain within not more than a few decades.

The two strains pulling that civilisation apart, environmental

concentration of economic power fostering the increasing growth of factories (perhaps a thousand in the years before 1811) and new kinds of machine that threw many kinds of labourer out of work. In short, to the beginnings of the Industrial Revolution in the late 18th century, and all that it meant for the transformation of British economy and society.

Here's one way of understanding what was at stake:

A description of Lancashire, around 1780: "Their dwellings and small gardens clean and neat -all the family well clad the men with each a watch in his pocket, and the women dressed to their own fancy - the church crowded to excess every Sunday -every house well furnished with a clock in elegant mahogany or fancy case -handsome tea services in Staffordshire ware... The workshop of the weaver was a rural cottage, from which when he was tired of sedentary labour he could sally forth into his little garden, and with the spade or the hoe tend its culinary productions. The cotton wool which was to form his weft was picked clean by the fingers of his younger children and was carded and spun by the older girls assisted by his wife, and the yarn was woven by himself assisted by his sons."¹

A description of Lancashire, around 1814: "There are hundreds of factories in Manchester which are five or six stories high. At the side of each factory there is a great chimney which belches forth black smoke and indicates the presence of the powerful steam engines. The smoke from the chimneys forms a great cloud which can be seen for miles around the town. The houses have become black on account of the smoke. The river upon which Manchester stands is so tainted with colouring matter that the water

resembles the contents of a dye vat... To save wages, mule jennies have actually been built so that no less than 600 spindles can be operated by one adult and two children... In the large spinning mills machines of different kinds stand in rows like regiments in an army." 2

Great forces were at work creating this transformation: powerful manufacturing and financial interests; aristocratic landowners and speculators; government stalwarts both political and bureaucratic; it is hardly any wonder that the men who were whirled and whipped around at the bottom of this maelstrom chose to resist. Resisting a maelstrom, especially one that represents the future, may be futile. But resist it they did.

Nottingham and its surrounding towns were the first to feel the Luddite fury. In addition to the high prices and depressed wages common throughout the industrial counties just then, Nottingham weavers - mostly of stockings and mittens, called stockings - faced competition from a new wide-frame machine that produced shoddy cloth but could turn out six times as much work as a normal machine. Moreover, around them were rising factories - in Derbyshire, 100 cotton and 11 wool factories were working, and in nearby Loughborough a new lace-making factory - and they could tell well enough what the future would be for them.

Almost nightly for three months, the Luddite armies would train and march and smash and disappear into the night. At least 1,100 knitting machines were broken in that time, despite the presence of an increased constabulary and the dispatch of soldiers to keep order. The local magistrates reported:

Industrialism, the ethos containing the values and technologies of Western civilisation, is the problem, and is not, nor does it contain, the solutions.

Now, it would be difficult to think that neo-Luddite resistance, whatever form it takes, would be able to overcome all those difficulties, particularly on a national or international scale; commitment and solidarity are mostly products of face-to-face, day-to-day interactions, unities of purpose that come from unities of place. But if it is to be anything more than sporadic and martyristic, neo-Luddism can learn from the Luddite experience at least how important it is to work out some common analysis that is morally clear about the problematic present and the desirable future, and the common strategies that stem from it.

All the elements of such an analysis, it seems to me, are in existence, scattered and unrefined, perhaps, but they are out there: in Mumford and Schumacher and Wendell Berry and Jerry Mander and the Chellis Clendinning neo-Luddite manifesto; in the writings of the EarthFirst!ers and the bioregionalists and deep ecologists; in the lessons and models of the Amish and the Dine and the Irokwa; in the wisdom of tribal elders and the legacy of tribal experience everywhere; in the work of the long line of dissenters-from-progress and naysayers-to-technology. I think we might even be able to identify some essentials of it, such as:

INDUSTRIALISM, the ethos containing the values and technologies of Western civilisation, is the problem, and is not, nor does it contain, the solutions.

expected to have any but the most temporary and localised effect against the citadel of high-tech industrialism and its protective state. All it can do - but this it must - is to try again and again to draw attention to the wellsprings of that dissent, the agony from which its opposition stems, so that somewhere in the collective memory of the society the essential truths are kept alive and the slow waves of erosion kept in motion. George Grant, the Canadian philosopher, has put the task this way: "The darkness which envelops the Western world because of its long dedication to the overcoming of chance" by which he means the triumph of the scientific mind - "is just a fact... The job of thought in our time is to bring into the light that darkness as darkness."

6. Resistance to industrialism must ultimately be embedded in an analysis - better, a philosophy that is widely shared and carefully articulated.

One of the failures of Luddism (if at first perhaps one of its strengths) was its formlessness, its unintentionality, its indistinctness about goals, desires, possibilities. Movements acting out of rage and outrage are often that way, of course, and for a while there is power and momentum in those alone; but for durability they are not enough, they do not sustain a commitment that lasts through the adversities of repression and trials, they do not forge a solidarity that prevents the infiltration of spies and stooges, they do not engender strategies and tactics that adapt to shifting conditions and adversaries, and they do not develop analyses that make clear the nature of the enemy and the alternatives to put in its place.

"Houses are broken into by armed men, many stocking-frames are destroyed, the lives of opposers are threatened, arms are seized, stacks are fired, and private property destroyed.

There is an outrageous spirit of tumult and riot."³

Or, as the Luddites themselves saw it, in one of their ballads:

"Chant no more your old rhymes about bold Robin Hood
His Feats I but little admire I will sing the Achievements
of General Ludd⁽⁴⁾
Now the Hero of Nottinghamshire
Brave Ludd was to measures of violence unused
Till his sufferings became so severe
That at last to defend his own Interest he rous'd
And for the great work did prepare. "

In the midst of the distress, one response was typified by a knitter, Gravener Henson, who organised a group to send a petition to Parliament asking it for some redress. The government quickly gave its answer, leaving no doubt that it was siding with the manufacturing sector: it sent out more and more troops - 3,000 to 4,000 in all by February - and it passed a law making the destruction of a machine an offence to be paid for by hanging. It was when that bill came up in the Lords that George Gordon, Lord Byron, gave his maiden speech in opposition, and eloquent it was:

"Is there not blood enough upon your penal code, that more must be poured forth to ascend to Heaven, and testify

against you'? How will you carry the bill into effect? Can you commit a whole country to their own prisons? Will you erect a gibbet in every field and hang up men like scarecrows'? Or will you proceed (as you must to bring this measure into effect) by decimation?... Are these the remedies for a starving and desperate populace?"

But it had no effect whatsoever on the Parliamentary outcome, which was overwhelmingly in favour of making a statement, a hallmark of industrialism, that machines are more important than men.

The government followed this with the prosecution at the March Assizes of ten men arrested for Luddism, seven of whom were convicted and sent to Australia - transportation being the stiffest possible sentence because the offences were committed before the death penalty act. The cases against the men were flimsy indeed, because almost no-one would come forth to testify against them - the solidarity of the community behind the Luddites, even by those who disapproved of their tactics, would be a feature of Luddism throughout - but the court was less concerned with evidence than sending a message to the populace.

It was a message that apparently had an effect in Nottinghamshire, for only 30 machines were smashed in February and 12 in March, and then nothing at all until a minor skirmish in the winter in which some 20 were broken. But Luddism did not die there, not at all: its sparks were swept to Lancashire and Yorkshire, and there started conflagrations even bigger and more destructive.

The acute distress of the textile workers there provided

and its native satrapies". You can never know about success, he said - and the wretched "success" of Indian independence under the Congress party underscores that wisdom - all you can know about is right and wrong, truth and falsity. Hence the actions of individuals as of movements, insofar as there is freedom to act at all, must be impelled out of a sense of urgency, and tragedy, and necessity, not out of any sense of victory.

"There is a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can't take part," is the way that Mario Savio put it before the nascent student movement at Berkeley, California in 1964. "And you've got to pin your bodies upon the levers, upon all the apparatus. and you've got to make it stop."

It is in this context that the role of violence should appropriately fall. As a tactic, the Luddites discovered, it is extremely effective, up to a point, but extremely limited, and the point at which it calls down the potent wrath of authority and turns off the allegiance of neighbours is pretty quickly reached. There was probably no other effective way than machine-breaking for the weavers to have made their case, quickly and forcefully, to demonstrate to local manufacturers and to London Ministers the seriousness of their plight. But it is difficult to maintain that tactic in a high-moral context, to take a high ground of principle by means of the low tools of destruction and fear, even if the ends do seem to justify the means, and it is more difficult still if one moves on to arson and assassination.

No imaginable amount of dissent and opposition, however dramatic and evocative, at whatever level of violence, can be

today that there was any real possibility of a revolution against any advanced industrial nation.

Nor, from historical experience, would it seem to make much difference to the imposition of the industrial regime even if it was. Such revolutions as have succeeded in the last two centuries in pre-industrial (or marginally industrial) states have only paved the way for the introduction of industrialism, whether of the authoritarian (Russia, Cuba etc.) or of a nationalistic (India, Nigeria, etc.) mould. And even where opposition to Western hegemony has been most fierce - the Soviet Union, China, parts of the Moslem world - opposition to Western technologies has been negligible.

5. Resistance to the industrial system, based on moral principles and moral revulsion, is not only possible, but necessary.

What remains of the upheaval of Luddism after all the particulars fade is the truth that Charlotte Brontë, saw in her youth: "The throes of a sort of moral earthquake were felt heaving under the hills of the northern counties," and it was an acting out of a genuinely-felt perception of right and wrong that went down deep into the English soul. Such a challenge is mounted not because one is certain of victory - I doubt the Luddites had any such clear idea, whatever the brashness and bluster of their letters - but because somewhere in the blood, in the place deep within where pain and fear and anger intersect, one is finally moved to refusal and defiance: no more. Gandhi says somewhere that the core of the *savradaya* movement was simply the need to speak the truth, not to prevail, not to oust British colonialism

adequate tinder: "1812 opens with a gloom altogether so frigid and cheerless," said the Manchester Gazette. "that hope itself is almost lost and frozen in the prospect," and across the Pennines a sympathetic manufacturer reported that he "never knew the poor in such a distressed situation as they are at present," with widespread starvation, wages down by half and more, thousands with no work at all and "the remainder have one-third or one-fourth part work." Factories had marched into this area with (literally) a vengeance from the late 18th century on, several hundred in Yorkshire, even more around Manchester (30 alone in the little town of Stockport), and everywhere the new machinery was making human work redundant or replacing men's labour with women and children at a pittance of the pay.

Some idea of the Luddite approach is given by a letter delivered to a Mr Smith of Huddersfield on 9th March 1812, signed by "the General of the Army of Redressers, Ned Ludd, Clerk":

"Sir: Information has just been given in that you are a holder of those detestable Shearing Frames [wool-finishing machines that could do the work of four or five men], and I was desired by my Men to write to you and give you fair warning to pull them down... You will take Notice that if they are not taken down by the end of next week, I will detach one of my Lieutenants with at least 300 Men to destroy them."

But the issue goes beyond that:

"We will never lay down our Arms... [until] the House of Commons passes an Act to put down all Machinery hurtful to

Commonality, and repeal that to hang Frame Breakers. But We. We petition no more {,} that won't do fighting must."

All Machinery hurtful to Commonality: Luddism in a nutshell. It wasn't machinery in general that the Luddites opposed, (many of them worked with fairly sophisticated weaving looms), but rather machinery that was hurtful to the common. They rose up with such ferocity not against all technology, as they are sometimes accused of, but against technologies that they saw would crush their livelihoods, overturn the traditional modes of work and employment, and erase the customary bonds of household, community and marketplace that had endured for centuries.

people in general and their particular communities, long established and much cherished. They rose up with such ferocity not against all technology, as they are sometimes accused of, but against technologies that they saw would crush their livelihoods, overturn the traditional modes of work and employment, and erase the customary bonds of household, community and marketplace that had endured for centuries.

Northern Luddism exploded first in Yorkshire in 1812, with a factory burned in January, three workshops attacked and their machines broken in February, a dozen more workshops and two factories attacked in March with hammers, torches, pistols and muskets. Lancashire followed with a factory attack and the burning of a warehouse in February, another factory attack in March, and then in April no fewer than ten factories were set on, their machinery smashed, and two of them were burned to the ground, the most violent actions in the Luddites' whole campaign. In that same month,

connectedness to the biosphere it seems certain to carry out that threat.

4. The nation state, intertwined with industrialism, will always come to its aid and defence, making revolt futile and reform ineffectual.

The industrial system, with the power of the dominant nation-states, has extended itself to every corner of the Earth. It does not care in the least what kinds of state those are, as long as the cadres that run them understand the duties expected of them, and thus can accommodate itself to almost any national system - Marxist Russia, capitalist Japan, China under a vicious dictator. Singapore under a benevolent one, messy and riven India, tidy and cohesive Norway, Jewish Israel, Moslem Malaysia - and in return asks only that its priorities dominate, its market rule. its values penetrate, and its interests be defended, with troops if necessary, be it in Iraq or in Kosovo.

Some among the Luddites might have entertained a dream that the British government could be overthrown - "shake off the hateful Yoke of a Silly Old Man, and his Son more silly and their Rogueish Ministers" - but it didn't take long to show the hollowness

of that. And since then there has not been a fully industrialised nation in the world that has had a successful rebellion against it, which says something telling about the synergy of industrialism and the nation-state. It would take one far more deluded than those wishful Luddites to dream

industrialism at its core, and he goes on to make the point that "only such people will so contrive and control those machines that their products are an enhancement of biological needs, and not a denial of them."

What happens when an economy is not embedded in a due regard for the natural world, understanding and coping with the full range of its consequences to species and their ecosystems, is not only that it wreaks its harm throughout the biosphere in indiscriminate and ultimately unsustainable ways, though that is bad enough. It also loses its sense of the human as a species and the individual as an animal, needing certain basic physical elements for survival, including land and air, decent food and shelter, intact communities and nurturing families, without which it will perish as miserably as a fish out of water, a wolf in a trap. An economy without any kind of ecological grounding will be as disregarding of the human members as of the non-human, and its social as well as its economic forms - factories, tenements, cities, hierarchies - will reflect that.

Since technology is, by its very essence, artificial - that is, not natural, a human construct not otherwise found in nature, where there is no technology - it tends to distance humans from their environment and set them in opposition to it. And the larger and more powerful it becomes, the greater is that distance and opposition: "The artificial world", as Jacques Ellul puts it, "is radically different from the natural world," with different imperatives, different directives and different laws" such that "it destroys, eliminates, or subordinates the natural world." At this point, technology is able to so completely overwhelm that natural world as to threaten its continued existence, and unless the technosphere re-establishes some

Yorkshire Luddism reached its height with six workshops attacked and two factories raided, including one mill at Rawfolds, whose story became famous as part of Charlotte Brontë's 1849 novel, *Shirley*.

But all this came at a fearful price. In the attack on the Rawfolds mill at least four Luddites were shot and killed (two of them buried in the graveyard of the church of the Reverend Luddite plotters, as seen by an 1816 engraving.

Patrick Brontë, Charlotte's father), and in a two-day siege of a Middleton mill at least ten men were killed (one press report suggested "from 25 to 30") and several dozen wounded. The government had reacted just as it had in Nottingham, sending in regiment after regiment of soldiers, many of whom were allowed to be put into service as guards in and around the factories and more of whom would be summoned when any disturbance broke out; by the end of April, a huge force of some 10,000 men had been dispatched to the Northern counties and unleashed without restriction to bully, bribe, subvert, terrify and, if necessary, fire upon the citizenry.

It was, in fact, the greatest invasion of its own territory the government of Britain had even prosecuted. By 1st May, there were no fewer than 14,400 soldiers in the Luddite region (an area of about 2,100 square miles), including cavalry and artillery, riding and marching around the countryside, giving the entire place, as the Leeds *Intelligencer* reported, "a most warlike appearance." In addition, there was a "voluntary militia" of citizens trained with annual encampments and intermittent drillings, numbering perhaps 20,000, and a system of local

magistrates for every sizeable town and city, each with a small staff of constables and spies.

It was in the face of this armed force, and continuing refusal by the government to lend any helping hand despite the continuing misery and unemployment, that the Luddites ratcheted up the level of violence once more. In April, one manufacturer in Nottingham was shot at and wounded, another manufacturer in Huddersfield was shot at and escaped, and a third in Yorkshire was shot and killed. Raids at night were no longer on factories or owners' houses, but on any establishment that might contain guns and bullets and valuables; a government agent in Stockport reported that "bodies of 100 and upwards of the Luddites have entered houses night after night and made seizures of arms." Churches were plundered for lead, and pumps and waterspouts and anything that could be melted down were stolen, all to be converted into bullets. Rebellion, indeed revolution, seemed to be in the air: a West Riding officer wrote of "open rebellion against the government", another warned that the nation was on "a direct Road to an open Insurrection," and a Lancashire general thought the Luddites were now aiming at "nothing more or less than the subversion of the government of the Country and the destruction of all Property."

But it proved to be less than that; in fact more like the dying twitch of a movement that had made its statement of desperation and misery for six months and found that it fell entirely on deaf ears, with no response from the powers of the land except force and repression. At the Lancashire Assizes in May, 10 Luddites were hanged, 38 transported and 18 imprisoned; in June, 38 men were arrested in

disrupted. And over all hung the threat of wholesale restructuring... [The] opponents of change might not have realised that it was an 'Industrial Revolution' they were experiencing, but they recognised that the ways and the values of the past were about to be overturned [with] deep and profound consequences."

We can see something of the same process at work today in those societies where industrialism has recently been introduced, particularly in its Western-capitalist form, from Eastern Europe to southern Africa, from Mexico to China. The shock waves of change shoot through stable communities and settled regions, disrupting families, clans, tribes, traditional relationships and behaviours, often setting tribe against tribe, religion against religion, race against race, in ways and with intensities never known before, often dragging societies into successive dictatorship where it is not perpetual civil war.

Whatever material benefits it may introduce, the familiar evils incoherent metropolises, spreading slums, crime and prostitution, inflation, corruption, pollution, cancer and heart disease, stress, anomie, alcoholism - almost always follow. And Helena Norberg-Hodge tells a story of the effect of the transistor radio - the innocent little transistor radio - on Ladakh; within a short time after its introduction people no longer sat around the fire singing communal songs because they could get the canned stuff from the capital.

3. Only a people serving an apprenticeship to Nature can be trusted with machines.

This very wise maxim of Herbert Read's serves to pierce

determine when machinery is hurtful or define a commonality that might have something to say about its introduction or use. Wendell Berry, the Kentucky poet and essayist, has produced a list of criteria that would serve well as a guide: a new tool, he says, should be cheaper, smaller and better than the one it replaces, use less energy (and that energy solar), be repairable, come from a small, local shop, and "should not replace or disrupt anything good that already exists, and this includes family and community relationships." To which only needs to be added two other simple measures: that those "family and community relationships" embrace all the other species and the living ecosystems, and be considered, as the Irokwa put it, with the interests of the next seven generations in mind.

2. Industrialism is a traumatic and cataclysmic process.

If chief among its values are speed and novelty, power and manipulation, it is bound to make rapid and extensive changes at all levels of society, and with some regularity; if its criteria are economic rather than social or civic, those changes will come without much regard for any but purely materialist consequences.

Only three decades into the Industrial Revolution, the Luddites already had a good sense of the magnitude and severity of the changes it was bringing. As British scholar Adrian Randall has put it:

"Directly and indirectly, the process of change affected and impinged upon whole communities... Family economies were

Lancashire, in October and November 20 more in Yorkshire. A factory was torched in Lancaster in September, but for the most part the storm had passed; the heart seemed to have gone out of the cause. And for the first time, perhaps in reaction to the extremity of assassination, the Luddite ranks cracked and a cropper in Huddersfield informed on the murderers, who were arrested and brought to trial. At the December Assizes, 14 men were hanged, and 6 transported, and with their deaths, Luddism came to an end - as a movement, though not as an idea.

A brief summary of Luddism's diverse effects suggests why it struck such a historic chord, and why that chord resonated through the social edifice of Britain, then and afterward, as few others before or since.

First, the costs: the Luddites destroyed something over £100,000 worth of property in just 14 months, and manufacturers had other losses in expenditures for defending mills and in factories idled; the government spent at least £500,000 in salaries alone for its military force, to say nothing of food, lodging, and equipment and an untold amount for prosecutions at the assizes. All in all, losses of around £1.5 million can be laid directly to Luddite activity.

Second, there were a few scattered practical results: wages

in a few places were raised, some machinery was discarded by manufacturers, several factories moved out of the Midlands, and a national organisation for poor relief was established. In many places, new machinery was not introduced for fear of a Luddite reaction.

Third, the failure of direct and violent action channelled workers' grievances into conventional reformist actions, leading to a revival of pressure for trade unions and workplace improvement on the one hand, and for parliamentary reform on the other. In effect, this meant the end of radicalism in Britain for all practical purposes, at least for the 19th century.

Fourth, the open alliance of government and industry laid

The open alliance of government and industry laid bare the true nature of the state and its willingness to use any force at hand in service to industrialism - a lesson not always heeded, but therefor all to see. bare the true nature of the state and its willingness to use any force at hand in service to industrialism - a lesson not always heeded, but there for all to see. Manufacturers learned that there would be nothing to check their powers except the market, and ancient bonds between the worker and master, fellow members of one community though of different rank, were now seen as irrelevant and unimportant.

Finally - and this is the real reason the Luddites have become as indelibly a part of the language as that other English group, the Puritans - Luddism brought the whole issue of machinery, and the succeeding technologies of the Industrial Revolution, out into the public arena and placed it on the agenda of industrial society for every age thereafter. "The machinery question", as it was called in 19th-century Britain, might be answered in several ways - and the favoured way of the industrialists was that all machines were legitimate and the economic and social consequences, however horrible, irrelevant - but at least it could no longer

of a particular culture. A conquering, violent culture - of which Western civilisation is a prime example, with the United States at its extreme - is bound to produce conquering, violent tools. When industrialism turned to agriculture after World War II, for example, it went at it with all that it had just learned on the battlefield, using ever-larger tractors modelled on wartime tanks to cut up fields, ever-deadlier chemicals to kill weeds and pests, ever-larger machines to move the earth into dams and ditches to drain it of its water. It was a war on the land, as sweeping and sophisticated as modern mechanisation can be, capable of destroying topsoil at the rate of 3 billion tons a year and water at the rate of 10 billion gallons a year, as we have demonstrated ever since. It could be no other way: if we beat our swords into ploughshares, they are still violent and deadly tools.

The business of cropping wool with huge hand-held scissors was an arduous and tiring one. The shearing frame could have done almost as good a job with much less effort and time, and the croppers might have welcomed such a disburdening tool if it had no history built in. But they knew, and became Luddites because they knew, what they would have to give up if they were to accept such a technology: the camaraderie of the cropping shop, with its loose hours and ale breaks and regular conversation and pride of workmanship, for the servility of the factory, with its discipline and hierarchy and control and skilllessness, and beyond that the rule of laissez faire, dog-eat-dog, buyer-beware, cash-on-the-line. The shearing frame was so obviously not neutral - it was machinery that was hurtful.

It does not seem hard in a modern context similarly to

approval, over which it had no control, and the use of which was detrimental to its interests, considered either as a body of workers or a body of families and neighbours and citizens. It was machinery, in other words, that was produced with only economic consequences in mind, and those of benefit to only a few, while the myriad social, environmental and cultural one, were deemed irrelevant.

"This invention confirms the great doctrine already propounded, that when capital enlists science in her service, the refractory hand of labour will always be taught docility".

For the fact of the matter is that, contrary to technophilic propaganda, technology is not neutral, composed of tools that can be used for good or evil depending on the user. It comes with an intrinsic character, an inevitable logic, bearing the purposes and the values of the economic system that spawns it. What was true of the technology of industrialism at the beginning, when the apologist Andrew Ure praised a new machine that replaced high-paid workmen - "This invention confirms the great doctrine already propounded, that when capital enlists science in her service, the refractory hand of labour will always be taught docility" - is as true today, when a reporter for

Automation can praise a computer system as "significant" because it assures that "decision-making" is "removed from the operator (and] gives maximum control of the machine to management." These are not accidental, ancillary attributes of the machines that are chosen; they are intrinsic and ineluctable.

Tools come with a prior history built in, expressing the values

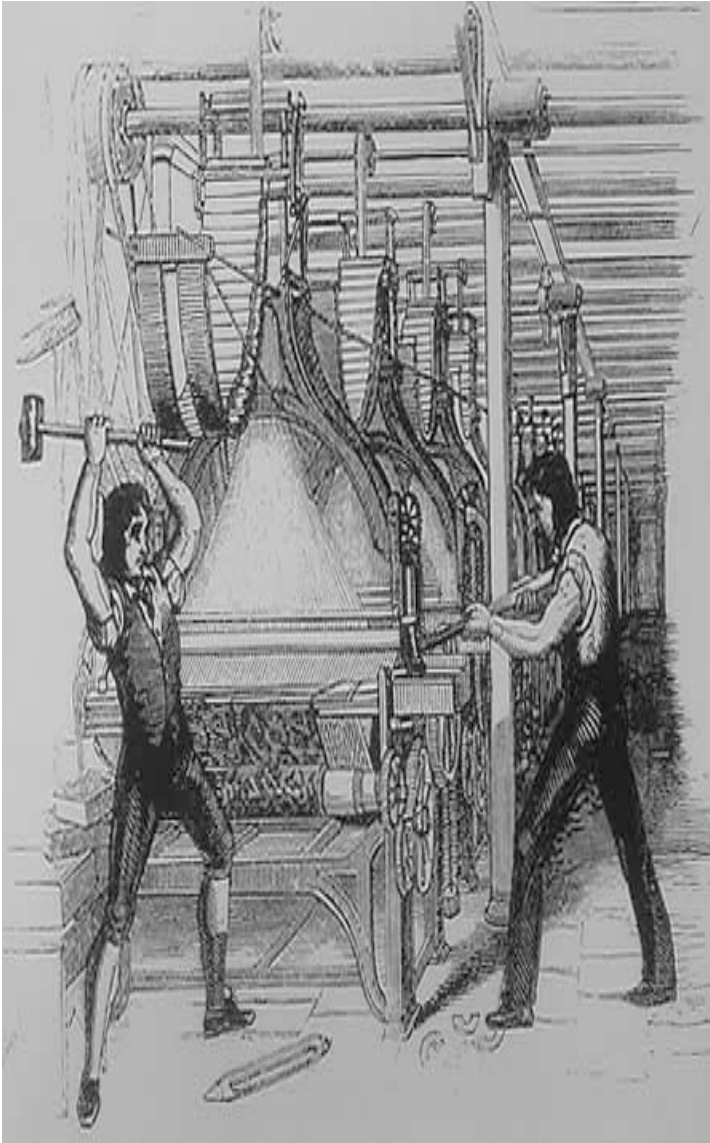
be ignored and would continue to haunt the industrial process wherever it went in the world and down to the present day.

Ultimately, it must be said, Luddism lost, and all that it opposed, and apprehended, came to pass. The dawn of modernism was not held back, the future was not brought short, and the Industrial Revolution was able to proceed on its catastrophic trajectory of destruction and immiseration, across Europe and around the world.

And yet, industrialism has had only 200 years of triumph. The Luddite tradition, of custom and community, of family and friendship, of good goods and fair prices, and of the natural rejection of "machinery hurtful to commonality," goes back far longer than that.

References:

1. Ure, A., Cotton Manufacture of Great Britain. Vol. I, p.191.
2. Henderson, W.O., Industrial Britain Under the Regency, p.136.
3. Felkin, W., History of the Machine-Wrought Hosiery and lace Manufacturers. p.233.
4. The origin of 'Ludd' is unknown. There is no foundation for the story put out by The Nottingham Review on 20 December 1811, that an apprentice named Ned Ludd once smashed a machine of a master near Leicester and hence gave his name to the action. It is more likely that the local Nottingham speech had an expression similar to the one in Cornwall, where "sent all of a lud" meant "struck all of a heap", or smashed. More likely still, the name came from an historic King Lud who, as Milton wrote, gave his name to "Luds town, now London . . . [and was] buried by the GateWarr, in Peace a jolly Feaster," which sounds a lot like the Nottingham model.



LESSONS FROM THE LUDDITES

Much there is to be learned from the experience of the 19th-century Luddites, as distant and as different as their times were from ours.

For just as the second Industrial Revolution inaugurated by the computer chip has its roots quite specifically in the first - while the machines change, the machineness does not, the context does not - so those today who would wish in some measure to resist, or even reverse, the tide of industrialism might find their most appropriate analogues, if not their models, in those original resisters.

The lessons one might take from the Luddite past are complex and difficult, some perhaps not very comforting. But it seems clear that in its own destruction and the imperilment of oxygen-dependent species on the surface of the Earth, some new attention needs to be paid to the sorts of things the Luddites were trying, in their perhaps crude and ultimately unsuccessful way, to declare to the world.

As I see it, these are the crucial lessons:

1. Technologies are never neutral, and some are positively detrimental.

It was not all machinery that the Luddites opposed, but rather "all machinery hurtful to commonality", as they put it in March

1812; machinery to which their commonality did not give